

# Notice of Allowability

Application No.

09/990,077

Examiner

Ronald Abelson

Applicant(s)

WOO, HSIEN-CHUNG

Art Unit

2619

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/21/07 and Examiner's Amendment of 2/13/08.
2. ☒ The allowed claim(s) is/are 16-24 and 27-38; renumbered as 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.



### Attachment(s)

- |  |  |
|--|--|
| <ol style="list-style-type: none"><li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li><li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li><li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li><li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li></ol> | <ol style="list-style-type: none"><li>5. <input type="checkbox"/> Notice of Informal Patent Application</li><li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li><li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li><li>8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li><li>9. <input type="checkbox"/> Other _____</li></ol> |
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Ronald Abelson  
Examiner  
Art Unit: 2619

***Examiner's Amendment***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this amendment was given in a correspondence with Garth Richmond on 2/13/08.

34. (Currently amended) In a network device including a group of three or more packet forwarding engines (PFEs) configured to receive packets from and transmit packets to at least one of a plurality of interface modules coupled to the group of PFEs, a method comprising:

selecting a first PFE and a second PFE of the group of PFEs;

receiving, by the at least one interface module, at least one packet contained in an incoming stream at an ingress port of the network device;

duplicating the at least one packet;

transmitting, from the at least one interface module, the duplicate packet to the first PFE and the second PFE for processing;

maintaining, in the first and second PFEs, identical state information associated with the processed packet;

receiving, at the at least one interface module, the processed packets forwarded from each of the first and second PFEs; [[and]]

despraying the received packets to form an outgoing stream of data packets based on a signal received from a control unit of the network device; and

transmitting, by the at least one interface module, ~~selected ones of the forwarded packets from one of the first PFE or the second PFE~~ the outgoing stream of data packets at an egress port of the network device.

38. (Currently amended) A network device including a set of three or more packet forwarding engines (PFEs) configured to receive packets from and transmit packets to at least one of a plurality of interface modules coupled to the first and second PFEs, the network device comprising:

means for selecting a first PFE of the set of PFEs and a second PFE of the set of PFEs;

means for receiving, by the at least one interface module, at least one packet contained in an incoming stream at an ingress port of the network device;

means for duplicating the at least one packet;

means for transmitting the duplicate packet to the first PFE and the second PFE for processing;

means for maintaining, in the first and second PFEs, identical state information associated with the processed packet;

means for receiving, at the at least one interface module, the processed packet forwarded from at least one of the first PFE or the second PFE; and

means for ~~transmitting~~ despraying, by the at least one interface module, the forwarded packet from one of the first PFE or the second PFE, based on a signal from the means for selecting, to form a stream of data packets output at an egress port of the network device ~~based on a signal from the means for selecting~~.

#### **Conclusion**

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Any comments considered necessary by the applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments of Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7439. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*RA*  
Ronald Abelson  
Examiner  
Art Unit 2619

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